PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
045054-0157

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] On December 26, 2007 Signature Typed or printed name	Application Number 10/765,124	Filed 1/28/2004
	First Named Inventor Koichi TAMURA	
	Art Unit 2617	Examiner Christopher M. Brandt

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
   See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
   Registration number _____38,072_____

☐ attorney or agent acting under 37 CFR 1.34.
   Registration number if acting under 37 CFR 1.34

_____ (Reg. 59597)
Signature
for /

_____George C. Beck_____
Typed or Printed Name

_____(202) 945-6014_____
Telephone Number

_____December 26, 2007_____
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

Atty. Dkt. No. 045054-0157

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Koichi TAMURA

Title: CIRCUIT, METHOD, AND
PROGRAM IN A CDMA
COMMUNICATION SYSTEM FOR
QUICKLY TRACKING A STABLE
PATH

Appl. No.:   10/765,124

Filing Date: 1/28/2004

Examiner: Christopher M. Brandt

Art Unit: 2617

Confirmation   2246
Number:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the New **Pre-Appeal Brief Conference Pilot Program**, announced July 11, 2005, this Pre-Appeal Brief Request is being filed together with a Notice of Appeal.

Remarks/Arguments begin on page 2 of this document.

REMARKS

The rejections of record are untenable because none of the cited references, either alone or in combination, teach or suggest a path searching circuit employed in a CDMA (Code Division Multiple Access) communication system (a) "wherein a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of samples of a candidate for said weighting control," and (b) "wherein said weighting controlling section, when the number of samples of said candidate for said weighting control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples," as claimed.

The claims currently under examination, claims 1-24, stand rejected as follows:

1.   under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication 2005/0271122 to Jonsson (hereinafter "Jonsson ") in view of U.S. Patent Application Publication 2002/0080743 to Morita (hereinafter "Morita"). See Final Office Action dated August 31, 2007 (hereinafter "OA") and Advisory Action dated December 11, 2007 (hereinafter "AA").

2.   under 35 U.S.C. § 103(a) as being unpatentable over Jonsson in view of Morita and further in view of U.S. Patent 6,026,115 to Higashi (hereinafter "Higashi").

None of these references teaches or suggests (a) "a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of samples of a candidate for said weighting control," (e.g. see claims 1, 7, 13 or 19) and (b) "wherein said weighting controlling section, when the number of samples of said candidate for said weighting control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples," (see claims 4, 10, 16 or 22).

The invention as claimed determines whether to exercise weighting control on a specific sample depending upon the number of samples of a candidate for weighting control. For example, if the number of samples of the candidate for weighting control is 1, the weighing coefficient controlling section 6 exercises control utilizing a negative weight on the sample. (page 17, lines 8-17 of the specification; claims 3, 10, 15, 21). However, if there are two or more samples of the candidate for weighting control, a different weighting control is exercised. Specifically, if two or more samples are detected as a candidate for weighting control, a further judgment is made as to the power level changes of the samples, and weighting coefficient control may or may not be exercised based upon this further judgment. (page 17, line 18 to page 18, line 5 of the specification). Thus,

based upon a judgment of the number of samples of a candidate for weighting control, weighting control is exercised on a specified sample.

First, the Examiner correctly asserts that Jonsson "fails to explicitly teach that the invention is employed in a CDMA communication system and the exercising of a weighting control where a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of sample of a candidate for said weighting control." (OA, page 3, lines 15-18).

Second, the Examiner relies of Morita to teach this feature of the invention as claimed. Specifically, the Examiner relies on paragraph 41 of Morita (OA, page 4, lines 1-3) to teach this feature:

> "The receiving antenna 17 of base station 10 then receives and outputs the feedback signal to weight demodulator 18 . The weight demodulator 18 demodulates the feedback signal to obtain the power comparison result and calculated phase difference, and updates the first and second complex-valued weights based on this power comparison result and calculated phase difference. A specific process whereby the weight demodulator 18 updates the first and second complex-valued weights is described below." (paragraph 0041)

However, there is no teaching or suggestion in this paragraph, or anywhere in the disclosure of Morita, that weighting control is exercised on a sample depending upon the number of samples of a candidate for weighting control. Rather, Morita teaches obtaining power comparison results and calculated phase difference for a first and second weight (which are referred to in the outstanding Advisory Action of Dec. 11, 2007 as "sample 1" and "sample 2"). (AA, page 3, lines 21-22) These first and second weights are updated based upon the power comparison results and calculated phase difference. There is no indication in Morita that this weighting control is exercised depending on the number of samples of the candidate (two). Morita only discusses the use of first and second known signals (which the Examiner has interpreted to be the samples of a candidate of the invention as claimed). There is no teaching or suggestion in Morita of utilizing different numbers of signals, or the effect of different numbers of signals on exercising weighting control on the signals.

The invention as claimed requires a judgment be made as to whether to exercise weighting control on a specific sample **depending upon a number of samples of a candidate for weighting control**. There is no mention in Morita of such a judgment being made, or any determination of when to exercise weighting control in general. Morita is concerned with updating signal weights with good precision (paragraph 0006). To that end, Morita compares the two signals and

correspondingly updates the complex-valued weights. However, this is in no way equivalent to judging the number of samples of a candidate for weighting control, and exercising weighting control accordingly. There is no teaching or disclosure in Morita of when weighting is to be utilized, or which weighting to utilize with a specific number of samples. Rather, it is assumed that a uniform weighting is utilized in the CDMA communication system, with the weights utilized in the weighting system updated as necessary. Thus, Morita fails to teach a "judgment as to whether said weighting control is exercised on a specified sample depends upon a number of samples of a candidate for said weighting control."

Third, Higashi fails to teach a "judgment as to whether said weighting control is exercised on a specified sample depends upon a number of samples of a candidate for said weighting control." Higashi is directed towards a RAKE receiver utilized in a direct sequence spread spectrum communication system. A RAKE receiver is well-known in the art as a radio receiver that uses sub-receivers that are slightly delayed in order to tune in to the individual multi-path components. These components are decoded separately and later combined. Higashi discusses the usage of weights in column 4, lines 9-12, disclosing that the RAKE combiner "combines the multipath signals with weights to achieve the maximal ratio combining." There is no other usage of weights in Higashi, nor does the word "weight" appear anywhere else in the disclosure of Higashi, let alone the concept of exercising a weighting control. Higashi does not teach or suggest a "judgment as to whether said weighting control is exercised on a specified sample depends upon a number of samples of a candidate for said weighting control," nor was Higashi relied upon to teach such a feature.

Fourth, the Examiner correctly asserts that neither Jonsson nor Morita teaches "wherein said weighting controlling section, when the number of samples of said candidate for said weighting control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples."

Fifth, the Examiner relies on Higashi to teach this feature of the invention as claimed. Specifically, the Examiner asserts that the disclosure of Higashi relating to a combination method of the subpaths teaches assigning weight to the samples for weighing control, when there are more than one sample and when the difference in power levels among the samples meets or exceeds a change threshold value. However, Higashi's method for combining subpaths deals with amplitudes of the paths, wherein paths with an amplitude less than a smaller threshold are cancelled, paths with amplitudes between two thresholds are combined, and paths with amplitudes higher than the higher threshold are combined later. These amplitudes are characteristics of the paths, not weights that are

assigned. Additionally, there is no comparison of amplitudes between paths before or after combination. The Examiner notes that "combined is read as weight since the combining is adding to another path." (OA, page 5, lines 14-15). However, Higashi utilizes weights with the multipath signals, as mentioned above. Thus, the Examiner's interpretation of the combination of paths in Higashi is incorrect.

Further, there is no indication in Higashi of assigning negative weight to the power levels of the samples for weighting control, even if Higashi did teach checking the preconditions of a determining two or more samples for weighting control and a difference in power level being at least a change threshold value. Rather, Higashi teaches combining subpaths in a RAKE receiver. Applicants respectfully submit that Higashi fails to teach a system, "wherein said weighting controlling section, when the number of samples of said candidate for said weighting control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples."
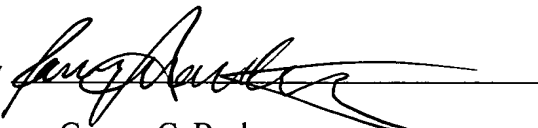
Conclusion:

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Applicants reserve the right to supplement these remarks and, should the application not be allowed, submit additional arguments in an Appeal Brief or at some later stage of prosecution.

Respectfully submitted,

Date _December 26, 2007_   By _____

FOLEY & LARDNER LLP   George C. Beck
Customer Number: 22428   Attorney for Applicant
Telephone: (202) 945-6014   Registration No. 38,072
Facsimile: (202) 672-5399

                                   Ramya Ananthanarayanan
                                   Agent for Applicant
                                   Registration No. 59,597